

**Before the
Federal Communications Commission
Washington, D.C. 20554**

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| In the Matter of |) | |
| |) | |
| Implementation of Section 304 of the |) | |
| Telecommunications Act of 1996 |) | CS Docket No. 97-80 |
| |) | |
| Commercial Availability of Navigation Devices |) | |
| |) | |

**REPLY COMMENTS OF
MICROSOFT CORPORATION**

In its Second Report and Order in the above-captioned proceeding, the Commission recognized that “the development of set-top boxes and other devices utilizing downloadable security is likely to facilitate a competitive navigation device market, aid in the interoperability of a variety of digital devices, and thereby further the DTV transition.”¹ Microsoft Corporation (“Microsoft”) fully agrees with the Commission about the import of downloadable security. In particular, in filing these reply comments to the Report of the National Cable & Telecommunications Association on Downloadable Security (“NCTA Report”) and the cable industry’s Downloadable Conditional Access System Host License Agreement (“DCAS Agreement”), Microsoft emphasizes its support for the development of a principally software-based downloadable conditional access solution that meets the needs of cable content providers, manufacturers, cable operators and consumers alike.

¹ Second Report & Order, *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, CS Docket No. 97-80, FCC 05-76, at ¶ 3 (rel. March 17, 2005) (“Second Report & Order”).

While the cable industry evidently has worked hard to develop its DCAS proposal, Microsoft believes that it requires improvement to be a workable software-based solution. We also have concerns that (i) in its present form, the DCAS Agreement would not adequately address the equities of all interested stakeholders, in part because it fails to protect sufficiently the intellectual property rights of Licensees, and (ii) because the underlying DCAS specifications are not yet available, it is unclear how other technologies will interoperate with the cable systems under the cable industry proposal. We look forward to working with the cable industry, the CE industry and other partners in the IT industry to develop a more workable downloadable security solution.

DISCUSSION

Microsoft agrees with the Commission, the cable industry and other IT industry commenters that downloadable security merits support as potentially the most efficient method to promote the development of truly competitive navigation devices while assuring the security and integrity of digital content.² The full benefits of digitally provided content and the promise of the DTV transition depend upon all interested stakeholders — including content providers, cable operators and device manufacturers — finding common ground on a security mechanism that enables true competition among navigation devices, as envisioned by Section 629.

² See *id.* at ¶ 31; Report of the National Cable & Telecommunications Association on Downloadable Security, *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, at 1 (Nov. 30, 2005) (“NCTA Report”); Comments of Dell Inc., Hewlett-Packard Company, Intel Corporation, and Sony Electronics Inc., *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, at 2, 6 (Jan. 20, 2006) (“Joint Comments”). See also Comments of Verizon, *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, at 1 (Jan. 20, 2006).

The question presented by the NCTA Report and DCAS Agreement is whether the cable industry has provided the framework for such a workable downloadable security solution. The answer is that work remains to be done. In order for DCAS to result in common reliance, the development of DCAS and the terms of the License Agreement must be improved in at least four respects:

1. Downloadable Security Should Be Principally Software-Based.

For common reliance to be competitively meaningful, it requires a solution that, *first*, provides all parties in the digital ecosystem with clarity and consistency regarding the necessary security level and, *second*, can be applied equally across platforms and over time by various navigation devices. Thus, there needs to be a move towards a software-based solution, since that will fulfill these criteria while respecting cable operators' legitimate interests in network security and cable content providers' legitimate interests in content protection. In addition, the renewability of a software solution will ensure that the digital content continues to receive appropriate protection over time.

The NCTA Report and DCAS Agreement fail to make progress in this direction because they present a solution based principally on hardware approaches. In particular, the NCTA Report and DCAS Agreement propose a new architecture for security that is built on a specified "secure microprocessor with a secure bootloader installed inside the set-top or DTV."³ Microsoft agrees with the Joint Commenters (Dell, Hewlett-Packard, Intel and Sony) that the NCTA DCAS proposal simply shifts conditional access from one hardware-based solution

³ NCTA Report at 3; DCAS Agreement, Exhibit B §§ 1.3, 1.4.

(CableCards) to another (the Secure Microprocessor).⁴ As a consequence, it falls short of the clearly stated goal of a truly downloadable security proposal.

This is not to say that hardware should not have any role to play in a downloadable security solution. Indeed, Microsoft believes that, in concept, it may be quite possible to develop a workable downloadable solution that includes certain hardware elements. However, to the extent that the DCAS Rules must prescribe the hardware elements, such requirements should be carefully crafted to ensure product differentiation that is consistent with competition on the merits. In particular, we believe that the hardware requirements in a DCAS regime, if any, should be specified only to the extent required to enable downloadable conditional access to operate on multiple proprietary implementations.

2. The DCAS Proposal Must Provide Equitable Treatment for the Intellectual Property Rights of All Stakeholders.

Microsoft believes that any conditional access regime directed at facilitating bidirectional, commercially available products must reflect the legitimate competitive equities of the entire digital ecosystem, including the CE, IT and cable industries and content producers. In this regard, we have specific concerns that the DCAS proposal would not sufficiently account for the legitimate intellectual property interests of participants, including Licensees from the CE and IT industries. In particular, the DCAS Agreement would require Licensees and their affiliates not to assert or maintain against CableLabs or any DCAS participants and their affiliates any patent, trade secret, or copyright infringement claims for products and services licensed to use

⁴ Joint Comments at 8.

DCAS Technology,⁵ but Licensees would not have the opportunity to review DCAS specifications before agreeing to give up their IP rights. The Robustness Checklist contained in the DCAS Agreement also would appear to require implementers potentially to disclose certain proprietary information without any confidentiality protection. These terms fall far short of ensuring the necessary equities of Licensees, and we are confident that the cable industry will correct these shortcomings given its seriousness in pursuing a workable downloadable security agreement.⁶

3. To Evaluate the DCAS Specifications, Greater Disclosure is Required.

Microsoft fully supports the development of a DCAS proposal containing Compliance and Robustness Rules that protect the integrity of the cable network and assure that devices protect digital content adequately against theft, while also assuring that device manufacturers and systems providers can develop products that interoperate with the cable systems on an equal basis and compete on the basis of their merits. In order to evaluate whether the cable proposal accomplishes these goals, however, parties must have access to the underlying DCAS specifications, which have not yet been made available by the cable industry. Without access to the precise specifications that would be required to comply with the DCAS Agreement, Microsoft cannot say for certain how readily the DCAS Agreement, as submitted, may be

⁵ DCAS Agreement § 8.1.

⁶ These are not necessarily the only terms that require further improvement to ensure that the DCAS Agreement reflects the practical and commercial realities of many interested stakeholders. For example, in some instances, the specific implementation details mandated under the Robustness Rules and Compliance Rules would appear to preclude implementations that are more secure, while in other cases it would appear possible for a Licensee to be in breach of the Agreement if a product acted in a non-compliant fashion as a result of third party tampering post-shipment (e.g., if a user modified a configuration). As indicated in our further comments herein, we look forward to working with the cable industry and others in the CE and IT industries to ensure that the DCAS Agreement fairly and equitably reflects the commercial realities of all interested stakeholders.

implemented or to what extent it promotes interoperability. We expect the cable industry to remedy this oversight. But based on what we know, NCTA's submission raises concerns. As noted, the Robustness Rules mandate implementation details for a specific Secure Microprocessor. The DCAS Rules should be revised accordingly to remove a bias towards specific hardware implementations.

4. Collaborative Efforts of All Interested Stakeholders Will Improve the DCAS Regime.

One year ago, executives from leading cable companies joined Microsoft in expressing a shared commitment to a "new process designed to accelerate progress in the ongoing inter-industry discussions to enable and promote the retail availability of two-way cable products."⁷ The cable companies further pledged their commitment to work collaboratively with the CE and IT industries to enable retail two-way products and software conditional access solutions and to keep the Commission informed of progress in those areas.⁸ These commitments no doubt reflected the good faith of the cable companies, built upon the commitment that they demonstrated to expanding access to unidirectional content.⁹ We also note that cable followed through with its commitment to expand access to unidirectional content and consumer choice among unidirectional devices by reaching the agreement on Open Cable Unidirectional Receiver ("OCUR") with Microsoft.

⁷ *February 24 Ex Parte Notice*, at 1.

⁸ *Id.*

⁹ *See, e.g.*, Second Report & Order at ¶ 28 (recognizing that the cable industry and equipment suppliers made "significant" progress in implementing the one-way plug and play Memorandum of Understanding).

Nevertheless, many of the concerns with the NCTA Report and DCAS Agreement that the IT and CE industries have expressed result from the facts that (i) the cable industry developed the Report and DCAS Agreement apparently without direct engagement of most of the major interested CE and IT stakeholders, including Microsoft; and (ii) the underlying technical DCAS specifications have not yet been made available. A commitment to inter-industry collaboration is now more vital than ever to improve upon the framework set forth in the NCTA Report and develop a downloadable conditional access regime that will lead to common reliance.

Conclusion

Microsoft continues to believe that downloadable security that is principally software-based offers the greatest potential to promote the development of truly competitive navigation devices while assuring the security and integrity of digital content. We believe that a workable downloadable security solution is eminently possible, and remain committed to working with cable, the CE industry, and our IT industry partners to develop a common downloadable security standard. We also support the view of others in the IT industry that the principles of consumer choice should be taken into account in any comprehensive DCAS regime.¹⁰

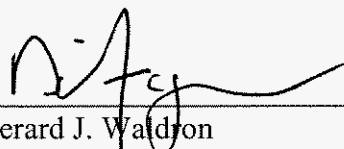
The cable industry evidently has worked hard to develop its DCAS proposal, and that proposal provides a good starting point for future collaboration. It now is incumbent upon all parties to work together in good faith to achieve the promise of downloadable security. We

¹⁰ Joint Comments at 4.

encourage the Commission to make clear that such collaboration is essential to achieving common reliance.

Respectfully submitted,

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